

TECHNICAL BULLETIN

SUBJECT: REPAIR OF LEGENDFLEX PEX & HYPERFLEX PE-RT IN HYDRONIC SYSTEMS

If during the course of the installation of a hydronic system, if any *above grade* tubing is damaged due to a cut or puncture, the damaged section of tubing needs to be removed. If the tubing that is damaged will be *below grade* (in cement or like material) or in a *concealed location* (in a wall or other similar location), if time permits, the complete piece of tubing should be replaced. Specifically for tubing that will be buried in cement (or like material) tubing repairs should only be done in an emergency. Best practice is to have a complete run of tubing with no splices in it.

ABOVE GRADE REPAIRS

Repairs to hydronic tubing above grade can be done with almost any fitting system that is approved for ASTM F876 / F877 PEX or ASTM F2623 PE-RT. Examples of Legend approved fittings for tubing repair are:

- Legend Emergency Repair Coupler – See page 2 for instructions.
- Legend ClearLoc coupling – No special requirements necessary.
- ASTM F2159 PPSU coupling with Copper Crimp Ring or Stainless Steel Cinch Ring – No special requirements necessary.
- ASTM F1960 PPSU coupling with PEX-a cold expansion rings – No special requirements necessary.

After the repair is made, the section of tubing must be pressure tested to confirm there are no leaks.

BELOW GRADE/ CONCEALED LOCATION REPAIRS

Repairs in these locations should be reserved for **emergency situations only**. Best practice is to have a complete run of tubing with no splices in it. If an emergency repair must be made, with a few exceptions, almost any fitting system that is approved for ASTM F876 / F877 PEX or ASTM F2623 PE-RT. If the damaged section of tubing is on a curved section, the tubing will need to be pulled back or repositioned so that the repair can be made in a straight section of the run. Examples of Legend approved fittings for tubing repair are:

- Legend Emergency Repair Coupler – See page 2 for instructions.
- Legend ClearLoc coupling – The fitting and surrounding tubing must be wrapped with a silicon tape, similar to Legend p/n 830-820
- ASTM F2159 PPSU coupling with Copper Crimp Ring – The fitting and surrounding tubing must be wrapped with a silicon tape, similar to Legend p/n 830-820. ***Stainless Steel Cinch rings should NOT be used in these locations.***
- ASTM F1960 PPSU coupling with PEX-a cold expansion rings – No special requirements necessary.

After the repair is made, the section of tubing must be pressure tested to confirm there are no leaks.

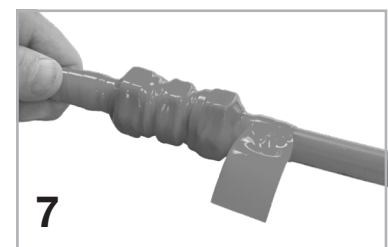
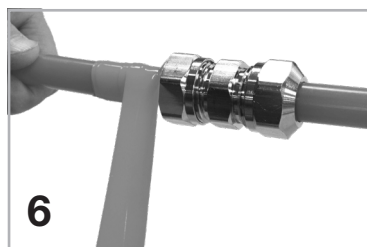
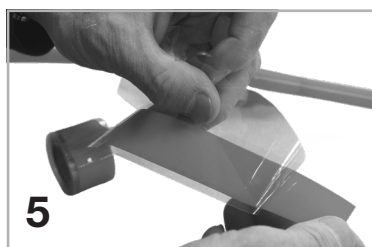
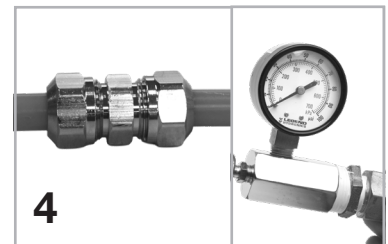
If you have any additional questions about making a repair to Legend radiant tubing, please contact Legend Technical Support at 800-752-2082.

INSTALLATION GUIDE

EMERGENCY REPAIR COUPLER

INSTALLATION REPAIR INSTRUCTIONS

1. Cut out the damaged section of tube.
2. Install the proper Stainless Steel Compression nut, split ring and insert adapter over the end of each piece to tubing to be repaired.
 - a. **Note:** You will also need (1) 830-819 repair coupler.
3. Using two adjustable wrenches, tighten one compression nut onto the repair coupler. Repeat for the second side.
4. Pressure test the repair for leaks. Once it has been determined that there are NO leaks at the repair, the fitting must be wrapped before it is placed in concrete.
5. Pull back 6 to 8 inches of the protective film from the end of the emergency repair tape.
6. Starting about 2" away for the repair coupler, stretch and fully overlap the repair tape onto itself. By 1/2" stretch at least twice its length for best fusion.
7. Continue wrapping until you completely cover the coupling and onto the tube by about two inches.
8. Cut the wrap from the roll and stretch the end around the tube onto itself.
9. The silicone begins to fuse immediately and can be covered with concrete as soon as you are done wrapping it.
 - a. **Note:** A mechanical joint, such as the emergency repair coupler, should only be used in an emergency situation. If time allows, a damaged tube should be completely replaced instead of installing an inaccessible mechanical joint.



NOTICE

Failure to follow these installation instructions may void the product warranty and could result in serious property damage and/or bodily injury, including death.

WARNING

When preparing for installation, utilize all proper personal protection equipment (PPE), including durable gloves, eye protection, hard hats, and steel-toed boots..